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MEMORANDUM

To: Glenn Haas, Acting Assistant Commissioner, BRP

cc: Eric Worrall, Deputy Regional Director, BRP/NERO
David Ferris, Director of Watershed Permitting
Richard Lehan, Office of General Counsel

From: Kevin Brander, DEP/NERO CSO Coordinator

Date: March 3, 2006

Re: EPA Memorandum, dated December 7, 2005, on financial impact on the MWRA ratepayers of requiring the MWRA to implement a level of CSO controls necessary to achieve state water quality standards

I have reviewed the above referenced EPA Technical Memorandum that concludes that financing the $11.5 billion needed to completely eliminate CSOs at any time prior to the year 2020 would cause widespread social and economic impact. As you are aware, this is a critical regulatory finding, as it is among the criteria which can be used to support issuance of a water quality standards change or a CSO Variance.

The EPA memorandum and attachments include the following information:

- A narrative of the estimated costs and associated rate impacts for facilities needed to eliminate CSO discharges in the MWRA Planning area;
- An October 7, 2005 letter from MWRA to EPA identifying the wastewater conveyance and treatment facilities (and costs) that would be needed to eliminate CSO discharges;
- A financial impact analysis and financial data worksheets for the Cities of Boston and Chelsea; and
- A Memorandum from Joseph Favaloro, Executive Director of the MWRA Advisory Board, to the MWRA Service-Area Communities advising them on the Community Rate Increase Projections for future fiscal years through 2015.

EPA has assessed the costs for elimination of CSO outfalls in the MWRA system, and conducted a financial analysis consistent with their 1995 *Interim Economic Guidance for Water Quality Standards*. Their analysis concludes that implementation of projects needed to eliminate all CSO outfalls would result in substantial and widespread economic impacts on the residents of Boston and Chelsea.

Methodology

As has been their past practice, EPA has relied on only an *affordability analysis* to determine if the standard of "substantial and widespread social and economic impact" has been met. While the aforementioned 1995 EPA Guidance allows for states to utilize alternative or complementary analyses to augment those specified in the Guidance, EPA has not chosen to consider alternative analyses or other factors in making their determination.

It has become commonplace for CSO permittees to submit not only the analyses prescribed in the EPA Guidance, but also other information which helps provide a more complete understanding of the financial implications of CSO commitments. This information has included other financial indicators, such as families with incomes below poverty levels, as well as social indicators which provide insight on the range of problems affecting communities. DEP considers most, if not all, of this information worthy of consideration in determining when the threshold of substantial and widespread social impact has been met, including taking into account the median household income as adjusted by the relatively high cost of living in the Boston area. DEP will continue to review the above range of information as an element of the CSO planning process.

As you know, DEP's August 11, 1997 Guidance for Abatement of Pollution from CSO Discharges establishes factors other than affordability as critical to making a finding that a Plan has achieved the highest feasible level of control, and has met the threshold of substantial and widespread social and economic impact. Among the factors DEP considers is cost-effectiveness, or the point at which costs to be incurred from further CSO control are excessive in comparison with the water quality benefits to be achieved. This has not been noted as a factor in the EPA determination, but remains a vital DEP concern. The present EPA determination, as in their previous February, 27, 1998 UAA on the MWRA CSO Plan, relies solely on affordability.

DEP does acknowledge that affordability **is** a critical factor, however, and supports EPA's finding that complete elimination of CSO discharges in the MWRA planning area is not feasible based on costs. This factor notwithstanding, other factors such as the technical feasibility and cost-effectiveness of proceeding with $11.5 billion for construction of a substantially new wastewater conveyance and treatment system also support that such measures are not required and meet the threshold of substantial and widespread social and economic impact.

Conclusion

EPA has made a reasonable demonstration that elimination of CSOs is not feasible and would cause widespread social and economic impact, though the argument would be strengthened by incorporating the concepts of cost-effectiveness into their determination. It is also important to note that three factors included in DEP's regulatory framework – affordability, cost-effectiveness, and protection of sensitive uses – are critical in not only determining if CSOs can be eliminated, but also in defining the highest feasible level of CSO control where elimination is infeasible. These three factors will continue to play a vital role in determining appropriate CSO control across the state, and in integrating CSO plans with state water quality standards.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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Note This was a Draft Version
Final dated 3/2/06.

Memorandum

Date: December 7, 2005

Subj: Massachusetts Water Quality Standards/Variances

From: Todd Borci
William Beckwith

To: File

After completing a series of technical analyses over the past twenty years, the MWRA has concluded that system-wide sewer separation would not result in the elimination of overflows. Flow remaining after system-wide separation would exceed the hydraulic capacity of significant system components, from the treatment plant headworks through the outfall. Separation alone fails to eliminate overflows because of uncorrectable infiltration and inflow from roof drains connected to internal plumbing systems in many of the drainage basins in combined areas. To eliminate overflows, the capacity of these system components would have to be increased, and many miles of interceptor would have to be replaced or supplemented. Altogether, the cost of this work would be approximately $11.5 billion. (See Attachment 1).

The Massachusetts Water Resources Authority has projected the minimum 2009 wastewater rates for Boston and Chelsea and estimated the percentage of median household income to which these rates will amount (See Attachments 2 and 3, respectively).[1] Those estimates are set forth in the following table.

Community	Annual Cost	Percent of Median Household Income
Boston	$397	0.8
Chelsea	$484	1.2

The MWRA believes that rates will be higher than these as critical infrastructure costs are added to its budget. While there is financial capacity to increase spending, the cost of eliminating